PCT09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/868,753

DATE: 07/11/2001 TIME: 11:02:40 4 Sog

Input Set : A:\sequence.txt

Output Set: N:\CRF3\07112001\I868753.raw

ENTERED

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3 <110> APPLICANT: Murphy, John R.
             O'Lear, Edward
             Harrison, Robert J.
      7 <120> TITLE OF INVENTION: Vaccine Compositions
      9 <130> FILE REFERENCE: AMSC 3.3-001
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/868,753
C--> 12 <141> CURRENT FILING DATE: 2001-06-21
     14 <150> PRIOR APPLICATION NUMBER: PCT/US00/29231
     15 <151> PRIOR FILING DATE: 2000-10-23
     17 <160> NUMBER OF SEQ ID NOS: 36
     19 <170> SOFTWARE: PatentIn Ver. 2.1
     21 <210> SEQ ID NO: 1
     22 <211> LENGTH: 24
     23 <212> TYPE: DNA
     24 <213> ORGANISM: Artificial Sequence
     26 <220> FEATURE:
     27 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
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    33 <210> SEQ ID NO: 2
    34 <211> LENGTH: 25
     35 <212> TYPE: DNA
     36 <213> ORGANISM: Artificial Sequence
     38 <220> FEATURE:
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     48 <213> ORGANISM: Unknown Organism
     50 <220> FEATURE:
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     59 <211> LENGTH: 19
     60 <212> TYPE: DNA
     61 <213> ORGANISM: Unknown Organism
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     71 <211> LENGTH: 25
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Input Set : A:\sequence.txt Output Set: N:\CRF3\07112001\I868753.raw 73 <213> ORGANISM: Artificial Sequence 75 <220> FEATURE: 76 <223> OTHER INFORMATION: Description of Artificial Sequence: Consensus-binding sequence 79 <220> FEATURE: 80 <221> NAME/KEY: modified base 81 <222> LOCATION: (1)..(25) 82 <223> OTHER INFORMATION: "n" represents variable bases 84 <400> SEQUENCE: 5 25 85 ananttaggn tagnctannc tnnnn 88 <210> SEQ ID NO: 6 89 <211> LENGTH: 19 90 <212> TYPE: DNA 91 <213> ORGANISM: Artificial Sequence 93 <220> FEATURE: 94 <223> OTHER INFORMATION: Description of Artificial Sequence: Variant DNA 96 <400> SEQUENCE: 6 97 twaggttags ctaacctwa 19 100 <210> SEQ ID NO: 7 101 <211> LENGTH: 230 102 <212> TYPE: PRT 103 <213> ORGANISM: Mycobacterium tuberculosis 105 <400> SEQUENCE: 7 106 Met Asn Glu Leu Val Asp Thr Thr Glu Met Tyr Leu Arg Thr Ile Tyr 107 1 5 109 Asp Leu Glu Glu Glu Gly Val Thr Pro Leu Arg Ala Arg Ile Ala Glu 25 112 Arg Leu Asp Gln Ser Gly Pro Thr Val Ser Gln Thr Val Ser Arg Met 115 Glu Arg Asp Gly Leu Leu Arg Val Ala Gly Asp Arg His Leu Glu Leu · 116 50 55 118 Thr Glu Lys Gly Arg Ala Leu Ala Ile Ala Val Met Arg Lys His Arg 75 70 ·121 Leu Ala Glu Arg Leu Leu Val Asp Val Ile Gly Leu Pro Trp Glu Glu 85 90 124 Val His Ala Glu Ala Cys Arg Trp Glu His Val Asn Ser Glu Asp Val 100 105 127 Glu Arg Arg Leu Val Lys Val Leu Asn Asn Pro Thr Thr Ser Pro Phe 115 130 Gly Asn Pro Ile Pro Gly Leu Val Glu Leu Gly Val Gly Pro Glu Pro 135 140 133 Gly Ala Asp Asp Ala Asn Leu Val Arg Leu Thr Glu Leu Pro Ala Gly 150 155 136 Ser Pro Val Ala Val Val Arg Gln Leu Thr Glu His Val Gln Gly 165 170 139 Asp Ile Asp Leu Ile Thr Arg Leu Lys Asp Ala Gly Val Val Pro Asn 180 185 142 Ala Arg Val Thr Val Glu Thr Thr Pro Gly Gly Val Thr Ile Val • 143 195 200

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Input Set : A:\sequence.txt

Output Set: N:\CRF3\07112001\1868753.raw

145 Ile Pro Gly His Glu Asn Val Thr Leu Pro His Glu Met Ala His Ala 148 Val Lys Val Glu Lys Val 149 225 152 <210> SEQ ID NO: 8 153 <211> LENGTH: 223 154 <212> TYPE: PRT 155 <213> ORGANISM: Cornyebacterium diptheriae 157 <400> SEQUENCE: 8 158 Met Lys Asp Leu Val Asp Thr Thr Glu Met Tyr Leu Arg Thr Ile Tyr 161 Glu Leu Glu Glu Glu Gly Val Thr Pro Leu Arg Ala Arg Ile Ala Glu 25 164 Arg Leu Glu Gln Ser Gly Pro Thr Val Ser Gln Thr Val Ala Arg Met 167 Glu Arg Asp Gly Leu Val Val Val Ala Ser Asp Ser Leu Gln Met Thr 55 170 Pro Thr Gly Arg Thr Leu Ala Thr Ala Val Met Arg Lys His Arg Leu 171 65 75 70 173 Ala Glu Arg Leu Leu Thr Asp Ile Ile Gly Leu Asp Ile Asn Lys Val 85 90 176 His Asp Glu Ala Cys Arg Trp Glu His Val Met Ser Asp Glu Val Glu 105 179 Arg Arg Leu Val Lys Val Lys Asp Val Ser Arg Ser Pro Phe Gly Asn 182 Pro Ile Pro Gly Leu Asp Glu Leu Gly Val Gly Asn Ser Asp Ala Ala 130 135 185 Ala Pro Gly Thr Arg Val Ile Asp Ala Ala Thr Ser Met Pro Arg Lys 150 188 Val Arg Ile Val Gln Ile Asn Glu Ile Phe Gln Val Glu Thr Asp Gln 170 165 191 Phe Gln Leu Leu Asp Ala Asp Ile Arg Val Gly Ser Glu Val Glu Ile 180 185 ·194 Val Asp Arg Asp Gly His Ile Thr Leu Ser His Asn Gly Lys Asp Val 195 200 197 Glu Leu Leu Asp Asp Leu Ala His Thr Ile Arg Ile Glu Glu Leu 210 215 201 <210> SEQ ID NO: 9 202 <211> LENGTH: 174 203 <212> TYPE: PRT 204 <213> ORGANISM: Staphylococcus epidermitis 206 <400> SEQUENCE: 9 207 Met Thr Val Ser Cys Pro Pro Pro Ser Thr Ser Glu Arg Glu Glu Gln 208 10 210 Ala Arg Ala Leu Cys Leu Arg Leu Leu Thr Ala Arg Ser Arg Thr Arg 213 Ala Glu Leu Ala Gly Gln Leu Ala Lys Arg Gly Tyr Pro Glu Asp Ile 40 · 216 Gly Asn Arg Val Leu Asp Arg Leu Ala Ala Val Gly Leu Val Asp Asp RAW SEQUENCE LISTING DATE: 07/11/2001 PATENT APPLICATION: US/09/868,753 TIME: 11:02:40

Input Set : A:\sequence.txt

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```
217
          50
 219 Thr Asp Phe Ala Glu Gln Trp Val Gln Ser Arg Arg Ala Asn Ala Ala
                          70
 222 Lys Ser Lys Arg Ala Leu Ala Ala Glu Leu His Ala Lys Gly Val Asp
 225 Asp Asp Val Ile Thr Thr Val Leu Gly Gly Ile Asp Ala Gly Ala Glu
                100
                                     105
 228 Arg Gly Arg Ala Glu Lys Leu Val Arg Ala Arg Leu Arg Arg Glu Val
                                 120
 231 Leu Ile Asp Asp Gly Thr Asp Glu Ala Arg Val Ser Arg Arg Leu Val
                             135
 234 Ala Met Leu Ala Arg Arg Gly Tyr Gly Gln Thr Leu Ala Cys Glu Val
                                             155
                         150
 237 Val Ile Ala Glu Leu Ala Ala Glu Arg Glu Arg Arg Val
                    165
 241 <210> SEQ ID NO: 10
 242 <211> LENGTH: 225
 243 <212> TYPE: PRT
 244 <213> ORGANISM: Mycobacterium leprae
 246 <400> SEQUENCE: 10
 247 Met Asn Asp Leu Val Asp Thr Thr Glu Met Tyr Leu Arg Thr Ile Tyr
 250 Asp Leu Glu Glu Gly Ile Val Thr Pro Leu Arg Ala Arg Ile Ala
                  20
                                      25
 253 Glu Arg Pro Thr Val Ser Gln Thr Val Ser Arg Met Glu Arg Asp Gly
 256 Leu Leu Arg Val Ala Gly Asn Arg His Leu Glu Leu Thr Thr Lys Gly
                              55
 259 Arg Ala Met Ala Ile Ala Val Met Arg Lys His Arg Leu Ala Glu Arg
                          70
- 262 Leu Leu Val Asp Val Ile Gly Leu Pro Trp Glu Glu Val His Ala Glu
                      85
                                          90
 265 Ala Cys Arg Trp Glu His Val Met Ser Glu Asp Val Glu Arg Arg Leu
                 100
                                     105
 268 Ile Lys Val Leu Asn Asn Pro Thr Thr Ser Pro Phe Gly Asn Pro Ile
                                 120
 271 Pro Gly Leu Leu Asp Leu Gly Ala Gly Pro Asp Ala Ser Ala Ala Asn
                             135
 274 Ala Lys Leu Val Arg Leu Thr Glu Leu Pro Ser Gly Ser Pro Val Ala
                         150
                                             155
 277 Val Val Val Arg Gln Leu Thr Glu His Val Asp Asp Ile Asp Leu Ile
                     165
                                         170
 280 Thr Arg Leu Lys Asp Thr Gly Val Val Pro Asn Ala Arg Val Thr Val
                                     185
                 180
 283 Glu Thr Ser Pro Ala Gly Asn Val Ile Ile Ile Pro Gly His Glu
             195
                                 200
 286 Asn Val Thr Leu Pro His Glu Met Ala His Ala Val Lys Val Glu Lys
 287
         210
                             215
· 289 Val
```

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Input Set : A:\sequence.txt

Output Set: N:\CRF3\07112001\I868753.raw

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290 225
 293 <210> SEO ID NO: 11
 294 <211> LENGTH: 230
 295 <212> TYPE: PRT
 296 <213> ORGANISM: Mycobacterium tuberculosis
 298 <400> SEQUENCE: 11
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 302 Asp Leu Glu Glu Glu Gly Val Thr Pro Leu Arg Ala Arg Ile Ala Glu
                  20
                                      2.5
 305 Arg Leu Asp Gln Ser Gly Pro Thr Val Ser Gln Thr Val Ser Arg Met
 308 Glu Arg Asp Gly Leu Leu Arg Val Ala Gly Asp Arg His Leu Glu Leu
                              55
 311 Thr Glu Lys Gly Arg Ala Leu Ala Ile Ala Val Met Arg Lys His Arg
 314 Leu Ala Glu Arg Leu Leu Val Asp Val Ile Gly Leu Pro Trp Glu Glu
                                          90
 317 Val His Ala Glu Ala Cys Arg Trp Glu His Val Met Ser Glu Asp Val
                                     105
                 100
 320 Glu Arg Arg Leu Val Lys Val Leu Asn Asn Pro Thr Thr Ser Pro Phe
            115
                                 120
 323 Gly Asn Pro Ile Pro Gly Leu Val Glu Leu Gly Val Gly Pro Glu Pro
                             135
                                                 140
 326 Gly Ala Asp Asp Ala Asn Leu Val Arg Leu Thr Glu Leu Pro Ala Gly
 327 145
                         150
                                             155
 329 Ser Pro Val Ala Val Val Val Arg Gln Leu Thr Glu His Val Gln Gly
                                         170
                     165
 332 Asp Ile Asp Leu Ile Thr Arg Leu Lys Asp Ala Gly Val Val Pro Asn
                180
                                     185
· 335 Ala Arg Val Thr Val Glu Thr Thr Pro Gly Gly Gly Val Thr Ile Val
                             200
 336
      195
                                                     205
 338 Ile Pro Gly His Glu Asn Val Thr Leu Pro His Glu Met Ala His Ala
 -339 210
                             215
 341 Val Lys Val Glu Lys Val
 345 <210> SEQ ID NO: 12
 346 <211> LENGTH: 233
 347 <212> TYPE: PRT
 348 <213> ORGANISM: Mycobacterium smegmatis
 350 <400> SEQUENCE: 12
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 354 Asp Leu Glu Glu Glu Gly Val Val Pro Leu Arg Ala Arg Ile Ala Glu
                  20
                                      25
 357 Arg Leu Asp Gln Ser Gly Pro Thr Val Ser Gln Thr Val Ser Arg Met
                                  40
 360 Glu Arg Asp Gly Leu Leu His Val Ala Gly Asp Arg His Leu Glu Leu
· 361
          50
                              55
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VERIFICATION SUMMARY

DATE: 07/11/2001

PATENT APPLICATION: US/09/868,753

TIME: 11:02:41

Input Set : A:\sequence.txt

Output Set: N:\CRF3\07112001\1868753.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:85 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5